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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,663	07/27/2004	Bin-Juine Huang	12262-US-PA	4662
31561 7590 03/28/2008 JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			EXAMINER DUONG, THO V	
			ART UNIT 3744	PAPER NUMBER
			NOTIFICATION DATE 03/28/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

<b>Office Action Summary</b>	<b>Application No.</b> 10/710,663	<b>Applicant(s)</b> HUANG ET AL.	
	<b>Examiner</b> Tho v. Duong	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's amendment filed 12/20/07 is acknowledged. Claims 1-3,5-7 and 17 are pending.

#### ***Response to Arguments***

Applicant's arguments filed 12/20/07 have been fully considered but they are not persuasive. Applicant's argument that reference to Kroliczek does not teach any "fluid channel in said porous core...is close at said second end" has been very carefully considered but is not found to be persuasive. Kroliczek discloses (figure 11) that a porous core (312) has one of a groove (316) has one end close and one end is open, which is reasonably to read on the fluid channel as claimed.

Furthermore, applicant's argument that reference to Van Oost does not disclose a fluid reservoir is located within the second hollow body, has been very carefully considered but is not found to be persuasive. Applicant is reminded that the examiner must interpret the limitation as broadly as it reasonably allows. Therefore, a space (12) which collects a fluid, is reasonably to read on a fluid reservoir that is located within the second hollow tube.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3,5-7 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the

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relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter of “said fluid reservoir is located between said second hollow tube and said first end of said porous core” is not supported by the original disclosure. The term “between” is interpreted as an intermediate space or interval, however, as disclosed by the applicant, there is no space or interval between the hollow tube and the porous core (in fact the porous core is located within the hollow tube). Therefore, the limitation that a fluid reservoir located between the second hollow tube and the porous core is not supported by the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3,5-7 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claimed subject matter of “ said second hollow tube has a fluid reservoir therein, and said fluid reservoir is located between said second hollow tube and said first end of said porous core” renders the scope of the claim indefinite since it is not clear how a fluid reservoir can be located within a hollow tube and also between that hollow tube and an end of a porous core that is also located within the hollow tube. The term “between” is interpreted as an intermediate space or interval, however, as disclosed by the applicant, there is no space or interval between the hollow tube and the porous core (in fact the porous core is located within the hollow tube).

Claims 1-3,5-7 and 17 are further rejected as can be best understood by the examiner in which both the fluid reservoir and the porous core are located within the hollow tube.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4,5,6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kroliczek et al. (US 6,382,309). Kroliczek discloses (figures 10,11 and 13) a heat transfer device comprising an evaporator comprising a first hollow tube (314); a porous core (312) mortised inside the first hollow tube; the porous core (312) having a first end and a second end opposite to the first end, the porous core has a fluid channel (316) formed therein and extending along a direction from the first end to the second end, the fluid channel (316) is open at first end and is closed at a second end (315); a second hollow tube (322), wherein a part of the first hollow part (left end) is mortised and secured inside the second hollow tube, and the other part of the first hollow tube is exposed outside of the hollow tube; a connecting pipe (400) connected to the evaporator; a condenser (410) on the connecting pipe; the porous core has a fluid channel therein being connected to a fluid reservoir; a vapor channel (another channel 316) between the first hollow tube (314) and the porous core, being connected to the connecting pipe; the first hollow tube has a closed end (340) having a first surface, the first surface having a first hole to connect with the connecting pipe (400); a second hollow tube (322) has a closed end, the closed

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end having a second surface, the second surface having a second hole being connected with the connecting pipe.

Claims 1,4,5,6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Oost (US 5,944,092). Van Oost discloses (figures 1 and 3b) a heat transfer device comprising an evaporator comprising a first hollow tube (2); a porous core (18) mortised inside the first hollow tube; the porous core (18) having a first end and a second end opposite to the first end, the porous core has a fluid channel (4) formed therein and extending along a direction from the first end to the second end, the fluid channel (14) is open at first end and is closed at a second end; a second hollow tube (13), wherein a part of the first hollow part is mortised and secured inside the second hollow tube, and the other part of the first hollow tube (right end) is exposed outside of the hollow tube; the second hollow tube (13) has a fluid reservoir (12,14) therein; a connecting pipe fluidly connected to the evaporator; a condenser (9) on the connecting pipe; the porous core (18) has the fluid channel (4) therein being connected to a fluid reservoir; a vapor channel (one of channel 12) between the first hollow tube and the porous core, being connected to the connecting pipe; the first hollow tube has a closed end (right end) having a first surface, the first surface having a first hole to fluidly connect with the connecting pipe; a second hollow tube (13) has a closed end, the closed end having a second surface, the second surface having a second hole being fluidly connected with the connecting pipe.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroliczek in view of T. D. Coe (US 3,387,653). Kroliczek does not disclose a heat conductor of first and second conducting block covering the evaporator and being on the heating device. Coe discloses (figures 3-4 and column 4, lines 8-14) a heat transfer device that has a heat conductor comprises a first heat conducting block (22) having a heat conducting tenon (26,27), a second heat conducting block (24) having mortise (31,32) for the insertion of the tenon; the first block and second block are put together to cover the tube (21) for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Coe's teaching in Kroliczek's device for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith.

Claims 2-3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oost in view of T. D. Coe (US 3,387,653). Oost does not disclose a heat conductor of first and second conducting block covering the evaporator and being on the heating device. Coe discloses (figures 3-4 and column 4, lines 8-14) a heat transfer device that has a heat conductor comprises a first heat conducting block (22) having a heat conducting tenon (26,27), a second heat conducting block (24) having mortise (31,32) for the insertion of the tenon; the first block and second block are put together to cover the tube (21) for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith. It would have

been obvious to one having ordinary skill in the art at the time the invention was made to use Coe's teaching in Oost's device for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/  
Primary Examiner, Art Unit 3744